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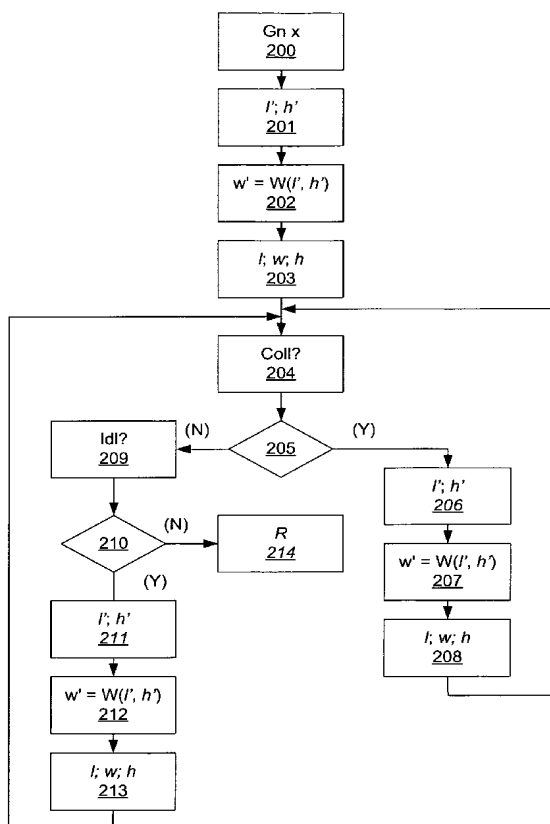
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(54) Title: CONTENTION RESOLUTION PROTOCOL FOR A SHARED CHANNEL



(57) Abstract: A method of controlling a window in a contention resolution protocol for a shared channel between at least three contending stations, according to which a station contends for a channel over a number of steps by generating a number,  $x$ , within an interval with a lower bound,  $l$ , initially equal to an initial lower bound,  $L$ , and an upper bound,  $h$ , initially equal to an initial upper bound,  $U$ ; and by trying to access the channel if the number,  $x$ , falls within a window with the lower bound,  $l$ , and an upper window bound,  $w$ ; a station which generated a number outside the window is eliminated from contending for the channel; whereas a station which generated a number within the window continues to contend for the channel; the method continues until one station is singled out to be determined winning the contention; the method comprises a step of: setting the upper window bound,  $w$ , to set a window within which the expected number of stations that will try to access the channel is approximately equal to 1. In a preferred embodiment the upper window bound,  $w$ , is set according to the following expressions:  $w = W(l, h) \equiv l + (h-l)/n$  where  $h \equiv U$ , and  $w = W(l, h) \equiv (l+h)/2$  otherwise; where  $n$  represents a number of contending stations or an estimated number of contending stations.



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